approach. In the strong monsoon winds, they are difficult to observe in open terrain, where there is low-level driven sand and bright sunlight.

The habitat is sand dunes close to the sea, and rolling plains, with patches of low, usually heavily grazed, halophytic scrub and herbaceous growth.

The following ground-nesting species breed in the same area where Obbia Larks have been observed, but not all occur throughout its range:- Crowned Lapwing *Vanellus coronatus,* Kittlitz's Sand Plover *Charadrius pecuarius,* Cream-coloured Courser *Cursorius cursor,* Little Tern *Sterna albifrons,* Red-winged Bush Lark *Mirafra hypermetra,* Somali Long-billed Lark *M. somalica,* Lesser Hoopoe Lark *Alaemon hamertoni,* Short-crested Lark *Galerida theklae,* White-fronted Sparrowlark *Eremopterix nigriceps* and Malindi Pipit *Anthus melindae.* No contact has been observed between Obbia Larks and any of these species.

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The first evidence of Demoiselle Crane *Anthropoides virgo* and Pygmy Cormorant *Phalacrocorax pygmaeus* in Britain.

by Graham S. Cowles

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Climatic and environmental change both influence the geographical distribution of avifaunas. Recently, the Demoiselle Crane *Anthropoides virgo* and Pygmy Cormorant *Phalacrocorax pygmaeus*, 2 steppe species not previously known from the British Isles, have been identified from bones excavated at 2 quite unrelated sites, one Pleistocene and one late Middle Age. The discovered remains may be representative of either resident or migrant populations now lost to Britain due to changes in climate or habitat. Alternatively, but much less probably, this may only be fortuitous evidence of 2 individual stragglers which once visited England.

ANTHROPOIDES VIRGO *Demoiselle Crane*

While undertaking the re-examination of avian bones in the A. L. Armstrong (1924-35) collection, excavated from Pin Hole Cave, Creswell Crags, Derbyshire, Mr. R. D. S. Jenkinson requested that a premaxilla be identified for him at the British Museum (Nat. Hist.), Tring. After comparison with material in the osteological collection, I have no doubt that this tip of the maxilla belongs to *Anthropoides virgo*. Until now only the larger Common Crane *Grus grus,* and the still larger, extinct crane *G. primigenia* have been identified from Pleistocene and archaeological sites in Britain (Harrison & Cowles 1977). Mr. Jenkinson has informed me that, although investigations into the stratification of Pin Hole Cave are not yet concluded, the premaxilla can be definitely dated as Pleistocene, and is possibly from the Middle Last Glacial, about 30,000 years B.C.

Today the Demoiselle Crane breeds in southern Russia and scattered localities across central Asia to Mongolia and southern Siberia (Walkinshaw 1973), wintering in parts of northeastern [and north central] Africa, India, Pakistan, Burma and China (Peters 1934). It is now extinct in Rumania, Tunisia and probably Algeria, but has recently been recorded breeding in Turkey (Cramp & Simmons 1980). This small crane prefers the boreal, steppe and semi-desert climatic zones (Voous 1960), but is said to have occurred twice in Britain, though both records have subsequently been discredited (Witherby *et al.* 1943). Its occurrence in glacial Britain would perhaps coincide with the emergence of suitable steppe vegetation during a temporary retreat in the ice sheet which covered parts of the country during the Pleistocene epoch. Other fossil bone material of *A. virgo* is known from Pleistocene deposits in France and Russia (Brodkorb 1967).

A complete list of the avifauna from Pin Hole Cave will be published by Bramwell & Jenkinson in due course, and I am grateful for their permission to publish in advance this note for ornithologists. The premaxilla of *A. virgo* is deposited in the collection of the Creswell Crags Visitor Centre, Derbyshire, specimen number PH (F) 30,395.

PHALACROCORAX PYGMAEUS *Pygmy Cormorant*

During the examination of bhnes excavated from an archaeological site in Stert Street, Abingdon, Oxfordshire, Mr. R. Wilson discovered 2 unusual avian carpometacarpi. Measurements indicate that the carpometacarpi are a pair, and form part of the left and right wings of one individual bird. The bones were recovered from debris which filled a disused, late mediaeval timber-lined well shaft (reference F34), dated 15th to 16th century (Parrington 1979). Because the bones did not match those of any species previously recorded from other British archaeological sites, one bone was submitted to the BMNH, Tring for identification. After an extensive study of the anatomical collections, the carpometacarpus was unexpectedly found to fit that of the Pygmy Cormorant *Phalacrocorax pygmaeus*. This species is not represented in the skeleton collection and to enable a direct comparison to be made, a corresponding bone was dissected out from an alcohol preserved specimen. The bone is so unusual in anatomical character and size, that there is absolutely no doubt that it does belong to *P. pygmaeus,* and this is the first record of this species occurring in the British Isles.

The breeding range of *P. pygmaeus* is at present recorded as Albania, Macedonia, Rumania, Bulgaria, Greece, the Black, Caspian and Aral Seas, and Asia Minor east to Iran. Formerly it bred in Hungary and Algeria (Peters 1979). The species is both sedentary and migratory, but movement is generally believed to be over short distances only. It has occurred accidentally in France, southern Sweden, Germany, Poland and some countries south to northern Tunisia (Cramp & Simmons 1977).

The Pygmy Cormorant prefers the temperate mediterranean and steppe climatic zones (Voous 1960), so it is just possible that the remains of the bird found at Abingdon represents an accidental visitor to 15th-16th century England. Alternatively there may have been a small population of Pygmy Cormorants existing at Abingdon in mediaeval times. The climate in Europe had reached the warmest period for several thousand years during 1100-1310 (Lamb 1977), and the temperate weather with mild winters then would have favoured the establishment of the Pygmy Cormorant in England. The abbey vineyard at Abingdon is recorded as flourishing at about 1380, and is proof of the continuing equitable climate at that time. A climatic change to much colder weather took place in late mediaeval England, with severe winters in the 1430s and in the mid 16th century (Lamb 1977), which would adversely effect a resident population of *P. pygmaeus.* The change had already caused the decline of the English vineyards, and the one at Abingdon was abandoned in 1412.

This small cormorant is predominantly an inland species, requiring dense reedbeds growing beside fresh water rivers, lakes or marshes, food being obtained from the slow flowing or shallow parts of rivers and streams, or in marshes and flood plains (Cramp & Simmons 1977). The 'wetlands' in the vicinity of mediaeval Abingdon and the countryside to the south are served by the rivers Thames and Ock. Proof of the old marshlands can still be seen in the long, mediaeval, raised stone causeway which was constructed at the beginning of the 15th century to give access across the flooded and marshy ground between Abingdon and Culham Bridge, to the south.

The draining of many suitable marshy habitats in various countries, even over the last century, has been responsible for a noticeable reduction in the distribution of *P. pygmaeus.* Cramp & Simmons (1977) record that the bird has not bred in Hungary for the last one hundred years, and that many old nesting colonies are now abandoned in Yugoslavia and in other parts of the range. The species is now extinct in Algeria, although it was present there in the 19th century (Heim de Balsac & Mayaud 1962).

The bones found at Abingdon establish that at least one Pygmy Cormorant was present in Britain 400 years or so ago. It was killed almost certainly for eating, as were other wild birds, its remains being thrown down the disused well, together with other remains from the table, as listed by various specialists (*in* Parrington 1979). It was a common practice to dispose of household refuse in this way at the time. The edibility of many bird species has been studied by Cott & Benson (1971). They rated the palatability of cormorants, and in particular *P. carbo,* highly, describing the flesh as brown and tender, reminiscent of liver. This fact may not have helped the survival of the Abingdon Cormorant.

The climatic factor and man's predation, coupled with the draining of the land, with the resulting loss of natural habitat, would certainly have threatened the survival of the Pygmy Cormorant population. Whether the Abingdon bird was a single accidental visitor, or one of a declining and now extinct population it is impossible to prove from this one record. Archaeological excavations are still in progress in the area and these may provide further evidence. The 2 carpometacarpi of *P. pygmaeus* are at present in the possession of the Oxfordshire Archaeological Unit, Hythe Bridge Street, Oxford.

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A Note on the birds of the Maldive Islands

by R. S. R. Fitter

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The literature on the birds of the Maldive Islands (Indian Ocean, between c. 8°N and c. 1°S) is so sparse (Duncan 1973, Gadow & Gardiner 1903, Phillips & Sim 1958, Strickland & Jenner 1978, Watson *et al.* 1963) that the results of even so short a stay as one week on a single island may be worth recording. My wife and I visited Villingili, an island of some 200 acres, at the south end of the North Male atoll, very largely devoted to tourism, from 6-13 February 1981. The vegetation consists almost entirely of coconut palms, with associated scrub and pan-tropical weeds, and a fringe of mangroves on the open shore. Approximately half the island's coastline is unspoiled sandy beach or coral rock, the rest being occupied by a tourist facility. A coral reef surrounds the whole island.

In general we were struck by the extraordinary lack of sea and shore birds, both on and off shore. Passerines were also virtually absent. Had there been any freshwater marsh or brackish lagoon, the list of waders would doubtless have been much longer.

Mammals present were Rabbits *Oryctolagus cuniculus,* presumably escaped domesticated forms as some were black, and one small unidentified rodent. Three species of reptile were frequent: the agamid lizard *Calots versicolor,* the smaller skink *Riopa albopunctata* and indoors the gecko *Hemidactylus frenatus.* Two species of butterfly, a few small moths, a dragonfly, a large black bee with a yellow patch and sundry mosquitoes, muscids and other Diptera were also noted.

Twelve species of bird were definitely identified:-